

What is claimed is:

1. A high frequency switch module, comprising:

a discriminating filter which discriminates a receive signal into a high-band receive signal and a low-band receive signal, and respectively outputs the signals to
5 a high-band input/output port and a low-band input/output port, and combines a high-band transmit signal input to the high-band input/output port with a low-band transmit signal input to the low-band input/output port;

a low-band high frequency switch for switching an operation of feeding the low-band receive signal from the low-band input/output port to a low-band
10 receiving port and an operation of feeding the low-band transmit signal fed to a low-band transmitting port to the low-band input/output port; and

a high-band high frequency switch for switching an operation of feeding the high-band receive signal from the high-band input/output port to a high-band receiving port and an operation of feeding the high-band transmit signal fed to a
15 high-band transmitting port to the high-band input/output port,

wherein said high-band high frequency switch comprises:

a first switch element connected between the high-band input/output port and the high-band transmitting port;

a second switch element with one end connected to the high-band
20 receiving port and the other end grounded;

a high-band 90-degree phase shifter connected between the high-band input/output port and the high-band receiving port; and

a high-band control port for controlling on-off operations of said first switch element and said second switch element;

25 wherein said low-band high frequency switch comprises:

a third switch element connected between the low-band input/output port and the low-band transmitting port;

a fourth switch element with one end connected to the low-band receiving port and the other end grounded;

5 a low-band 90-degree phase shifter connected between the low-band input/output port and the low-band receiving port; and

a low-band control port for controlling on-off operations of said third switch element and said fourth switch element, and

10 wherein at least one of said high-band 90-degree phase shifter and said low-band 90-degree phase shifter comprises:

a high-pass filter circuit; and

a choke line parallel-connected to said high-pass filter circuit, which is a conducting path of control voltage applied from the high-band control port or the low-band control port.

15

2. The high frequency switch module of claim 1, wherein at least one of the switch elements ranging from the first switch element to the fourth switch element is formed by using PIN diodes.

20

3. The high frequency switch module of claim 1, wherein at least one of the switch elements ranging from the first switch element to the fourth switch element is formed by using FET elements.

25